

CHECKLIST ENVIRONMENTAL ASSESSMENT

Proposed Action: Approve Drilling Permit (Form 22)

Project/Well Name: Fey 6-33

Operator: Avanti Energy Montana, LLC

Location: SE NW Section 33 T37N R2E

County: Toole MT; **Field (or Wildcat):** Wildcat

Proposed Project Date: 01/15/2022

I. DESCRIPTION OF ACTION

Avanti Energy Montana, LLC plans to drill a well for a Souris River/Flathead formation test 5,612' MD / TVD.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS, OR INDIVIDUALS CONTACTED

Montana Bureau of Mines and Geology, GWIC website (Toole County Wells).

US Fish and Wildlife, Region 6 website

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA COUNTIES, Toole County

Montana Natural Heritage Program Website (FWP)

Heritage State Rank= S1, S2, S3, T37N R2E

Montana Cadastral Website

Surface Ownership and surface use Section 33 T37N R2E

Montana Department of Natural Resources MEPA Submittal

2. ALTERNATIVES CONSIDERED

No Action Alternative: The proposed well would not be drilled.

Action Alternative: Avanti Energy Montana, LLC would have permission to drill the well.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

3. AIR QUALITY

Long drilling time: No, 3-5 days drilling time.

Unusually deep drilling (high horsepower rig): No, drilling rig for a 5,612' MD / TVD well. The objective formation is the Souris River/Flathead.

Possible H₂S gas production: Possible in Mississippian and Devonian formations.

In/near Class I air quality area: No.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211. AQB review.

Comments: No special concerns – using rig to drill well to 5,612' MD / TVD. If there are no gas gathering systems nearby, associated gas can be flared under Board Rule 36.22.1220.

4. WATER QUALITY

Salt/oil-based mud: Freshwater based mud will be used on surface hole. On production hole, oil-based mud will be utilized.

High water table: No high-water table anticipated at this location.

Surface drainage leads to live water: No, an unnamed ephemeral drainage is located about 1/10 of a mile to the south.

Water well contamination: No water wells within a ½ mile radius.

Porous/permeable soils: No, sandy clay.

Class I stream drainage: No.

Groundwater vulnerability area: No.

Mitigation:

☐ Lined reserve pit:

☒ Adequate surface casing

☐ Berms/dykes, re-routed drainage

☒ Closed mud system

☐ Off-site disposal of solids/liquids (in approved facility)

Comments: Steel surface casing will be set to 2,100' and cemented to surface to protect ground water. (Rule 36.22.1001).

5. SOILS/VEGETATION/LAND USE

Vegetation: Grass land.

Stream crossings: None anticipated.

High erosion potential: No, a small cut of 9.7' and a small fill of 6.5' is required.

Loss of soil productivity: None, location to be restored after drilling well, if well is nonproductive.

Unusually large wellsite (Describe dimensions): No, 300' X 300'.

Damage to improvements: Slight, surface use is grass land.

Conflict with existing land use/values: Slight

Mitigation

- ☐ Avoid improvements (topographic tolerance)
- ☐ Exception location requested
- ☒ Stockpile topsoil
- ☐ Stream Crossing Permit (other agency review)
- ☐ Reclaim unused part of wellsite if productive
- ☐ Special construction methods to enhance reclamation

Access Road: Access will be off of Miners Coulee Road and existing trails.

Drilling fluids/solids: Drilling waste will be buried on site in lined cuttings pit.

6. HEALTH HAZARDS/NOISE

Proximity to public facilities/residences: No residences within a ½ mile radius. The town of Sunburst is located about 20 miles to the west.

Possibility of H2S: Possible in Mississippian and Devonian formations.

In/near Class I air quality area: No.

Size of rig/length of drilling time: 3-5 days drilling time.

Mitigation:

- ☒ Proper BOP equipment.
- ☐ Topographic sound barriers
- ☐ H2S contingency and/or evacuation plan
- ☐ Special equipment/procedures requirements
- ☐ Other:

7. WILDLIFE/RECREATION

Sage Grouse: No.

Proximity to sensitive wildlife areas (DFWP identified): None.

Proximity to recreation sites: None.

Creation of new access to wildlife habitat: None.

Conflict with game range/refuge management: None.

Threatened or endangered Species: Species identified as threatened or endangered in Toole County are the Red knot and Grizzly Bear. Potential species is the Whitebark Pine and candidate species is the Monarch Butterfly. MTFWP Natural Heritage Tracker website lists four (4) species of concern, Grizzly Bear, Golden Eagle, Ferruginous Hawk, and Clark's Nutcracker.

Mitigation:

- ☐ Avoidance (topographic tolerance/exception)
- ☐ Other agency review (DFWP, federal agencies, DNRC Trust Lands, Sage Grouse Habitat Conservation Program)

☐ Screening/fencing of pits, drillsite

☐ Other:

Comments: Private surface lands. There may be species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what he would like done if a species of concern is discovered at this location. The Board of Oil & Gas has no jurisdiction over private surface lands. No concerns.

IV. IMPACTS ON THE HUMAN POPULATION

8. HISTORICAL/CULTURAL/PALEONTOLOGICAL

Proximity to known sites: None.

Mitigation

☐ avoidance (topographic tolerance, location exception)

☐ other agency review (SHPO, DNRC Trust Lands, federal agencies)

Other:

9. SOCIAL/ECONOMIC

Substantial effect on tax base

☐ Create demand for new governmental services

☐ Population increase or relocation

Comments: No concerns.

IV. SUMMARY

No long term impacts expected. Some short term impacts will occur, but can be mitigated.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

**EA Checklist
Prepared By:**

Name: John Gizicki

Date: 11/23/21

Title: Compliance Specialist